

CLAIMS

What is claimed is:

- 1 1. A method of yield improvement for manufactured products, comprising:
 - 2 A) providing an identification plan for parts, whereby each part is given
3 unique and traceable identification data;
 - 4 B) providing an identification plan for processing equipment by which each
5 piece of equipment is given unique and traceable identification data;
 - 6 C) providing a database into which said parts identification data and said
7 processing equipment identification data are stored, and related;
 - 8 D) processing said parts in at least one processing stage by said processing
9 equipment to yield processed parts;
 - 10 E) testing said processed parts for defects and performance characteristics;
 - 11 F) identifying problems through said testing of said processed parts;
 - 12 G) retrieving said related parts identification data and said processing
13 equipment identification data from said database;
 - 14 H) analyzing said data to trace said parts to said processing equipment and to
15 determine what corrections and repairs to said processing equipment may be necessary;
 - 16 I) making corrections and repairs to processing equipment to correct said
17 problems; and
 - 18 J) confirming improvement to yield of said manufactured products.

1 2. The method of claim 1, wherein:
2 said identification plan for parts of A is achieved by assigning numbers to batches
3 of parts and further assigning data related to positions within said batch of parts.

1 3. The method of claim 1, wherein:
2 said database of C is accessible from multiple computer terminals.

1 4. The method of claim 3, wherein:
2 said multiple computer terminals are located in separate facilities.

1 5. The method of claim 4, wherein:
2 said multiple computer terminals are connected by the Internet.

1 6. The method of claim 4, wherein:
2 said multiple computer terminals are connected by an intranet.

1 7. The method of claim 1, wherein:
2 said processing equipment of B is located in more than one manufacturing
3 facility.

1 8. The method of claim 1, wherein:

2 said testing of said processed parts of E is done in a separate manufacturing
3 facility from the one in which at least one of said at least one processing stage is
4 performed.

1 9. The method of claim 1, wherein:

2 said testing of said processed parts of E includes shipping finished manufactured
3 products to consumers and monitoring field problems.

1 10. The method of claim 1, wherein:

2 said identifying problems of said processed parts of F includes shipping finished
3 manufactured products to consumers, monitoring field problems and inspecting returned
4 products.

1 11. The method of claim 1, wherein:

2 said identifying of problems of said processed parts of F includes tracing parts
3 downstream to monitor performance of parts from a processing machine which is
4 suspected of having problems.

1 12. The method of claim 1, wherein:

2 said identifying of problems of said processed parts of F includes tracing parts
3 upstream to correct performance of a processing machine which is suspected of causing
4 problems.

1 13. The method of claim 1, wherein:
2 said identifying of problems of F includes sending ahead parts from a main batch
3 to test performance of the main batch.

1 14. A method of yield improvement for HDDs, comprising:

2 A) providing an identification plan for parts, whereby each part is given
3 unique and traceable identification data;

4 B) providing an identification plan for processing equipment by which each
5 piece of equipment is given unique and traceable identification data;

6 C) providing a database into which said parts identification data and said
7 processing equipment identification data are stored, and related;

8 D) receiving disk cassettes;

9 E) inputting disk identification data from disk batches and position data into
10 said database;

11 F) processing said disks in at least one processing stage by said processing
12 equipment to produce HDDs;

13 G) testing said HDDs for defects and performance characteristics;

14 H) identifying problems through said testing of said HDDs;

15 I) retrieving said related disk identification data and said processing
16 equipment identification data from said database;

17 J) analyzing said data to trace said HDDs to said processing equipment to
18 determine what corrections and repairs to said processing equipment may be necessary;

19 K) making corrections and repairs to processing equipment to correct said
20 problems; and

21 L) confirming improvement to yield of said HDDs.

1 15. The method of claim 14, wherein:
2 said database of C is accessible from multiple computer terminals.

1 16. The method of claim 15, wherein:
2 said multiple computer terminals are located in separate facilities.

1 17. The method of claim 16, wherein:
2 said multiple computer terminals are connected by the Internet.

1 18. The method of claim 16, wherein:
2 said multiple computer terminals are connected by an intranet.

1 19. The method of claim 14, wherein:
2 said processing equipment is located in more than one manufacturing facility.

1 20. The method of claim 14, wherein:
2 said testing of said HDDs of G is done in a separate manufacturing facility from
3 the one in which at least one of said at least one processing stage is performed.

1 21. The method of claim 14, wherein:
2 said testing of said HDDs of G includes shipping finished manufactured products
3 to consumers and monitoring field problems.

1 22. The method of claim 14, wherein:
2 said identifying problems of said HDDs of H includes shipping finished
3 manufactured products to consumers, monitoring field problems and inspecting returned
4 products.

1 23. The method of claim 14, wherein:
2 said identifying of problems of said HDDs of H includes tracing parts
3 downstream to monitor performance of parts from a processing machine which is
4 suspected of having problems.

1 24. The method of claim 14, wherein:
2 said identifying of problems of said HDDs of H includes tracing parts upstream to
3 correct performance of a processing machine which is suspected of causing problems.

1 25. The method of claim 14, wherein:
2 said identifying of problems of said HDDs of H includes sending ahead parts
3 from a main batch to test performance of the main batch.